



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/735,301	12/12/2003	James B. Piket	33692.03.1430	9955

23418 7590 08/17/2005

VEDDER PRICE KAUFMAN & KAMMHOLZ
222 N. LASALLE STREET
CHICAGO, IL 60601

EXAMINER

HAROLD, JEFFEREY F

ART UNIT	PAPER NUMBER
----------	--------------

2646

DATE MAILED: 08/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/735,301

Applicant(s)

PIKET ET AL.

Examiner

Jefferey F. Harold

Art Unit

2646

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 6-26 is/are rejected.
- 7) ☒ Claim(s) 4 and 5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

1. ***Claims 1-26*** are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-25 of copending Application No. 10/735,300. Although the conflicting claims are not identical, they are not patentably distinct from each other because both applications are drawn to the inventive concept of providing a double talk activity detector and method for an echo cancellation system used for increasing the probability of detecting a double talk condition.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. ***Claims 1-3, and 6-26*** are rejected under 35 U.S.C. 102(e) as being anticipated by Takahashi et al. (United States Patent 6,868,158), hereinafter referenced as Takahashi.

Regarding **claim 1**, Takahashi discloses an echo processing apparatus. In addition, Takahashi discloses an echo canceller circuit comprising: a downlink activity (far end signal) and double talk probability data generator (16) operative to receive pre-echo canceller uplink data (near end signal) and downlink data, and in response to produce double talk activity probability data (judgment signal) and downlink activity data; and an echo canceller stage (7), operatively coupled to the double talk activity probability data generator (16) and operative to receive downlink data (received signal), the pre-echo canceller uplink data (near end signal) and the double talk activity probability data (judgment signal) and in response to produce attenuated uplink data (transmission signal), as disclosed at column 7, line 43 through column 11, line 47 and exhibited in figures 2 and 3.

Regarding **claim 2**, Takahashi discloses everything claimed as applied above (see claim 1), in addition, Takahashi discloses wherein the echo canceller stage (7) includes an echo canceller adaptive filter (8) operatively coupled to the downlink activity and double talk activity probability data generator (16) and operative to receive the double talk activity probability data (judgment signal), the downlink activity data and the downlink data; and in response to vary a rate of echo cancellation adaptation (halt and start of the updating of the coefficients), as disclosed at column 7, line 43 through column 11, line 47 and exhibited in figures 2 and 3.

Regarding **claim 3**, Takahashi discloses everything claimed as applied above (see claim 2), in addition, Takahashi discloses wherein the rate of echo cancellation adaptation is controlled in response to an adaptation gain based on at least the double talk probability data, as disclosed at column 7, line 43 through column 11, line 47 and exhibited in figures 2 and 3.

Regarding **claim 6**, Takahashi discloses everything claimed as applied above (see claim 1), in addition, Takahashi discloses a downlink activity data generator, operatively coupled to the echo canceller stage, and operative to receive downlink data, and in response to produce the downlink activity data; and a double talk probability data generator, operatively coupled to the echo canceller stage, and operative to receive the pre-echo canceller uplink data and in response to produce the double talk probability data, as disclosed at column 7, line 43 through column 11, line 47 and exhibited in figures 2 and 3.

Regarding claims 7-26, they are interpreted and thus rejected by Takahashi for the reasons set forth above in the rejection of claims 1-3 and 6.

Allowable Subject Matter

3. ***Claims 4 and 5*** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Citation of Pertinent Art

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Younce et al. (United States Patent 5,274,705), discloses a non-linear processor for an echo canceller.

Younce et al. (United States Patent 6,718,035), discloses an echo canceller employing dual-h architecture having split adaptive gain settings.

Conclusion


5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jefferey F. Harold whose telephone number is 571-272-7519. The examiner can normally be reached on Monday - Friday 9 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh H. Tran can be reached on 571-272-7564. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



JFH
August 11, 2005



Jefferey F Harold
Primary Examiner
Art Unit 2646